

Q T
255
D725w
1923

WALKING FOR HEALTH

ALVAH H. DOTY, M.D. 26

QT 255 D725w 1923

07620170R



NLM 05052319 2

NATIONAL LIBRARY OF MEDICINE

SURGEON GENERAL'S OFFICE
LIBRARY.

Section *Gynecology*

No. 113,
W. D. S. G. O.

No. *257357*

8-513

**WALKING
FOR HEALTH**

By ALVAH H. DOTY, M.D.

A MANUAL OF INSTRUCTION
IN THE PRINCIPLES OF
PROMPT AID TO THE INJURED

THE PREVENTION OF
INFECTIOUS DISEASES

THE MOSQUITO
ITS RELATION TO DISEASE
AND ITS EXTERMINATION

GOOD HEALTH

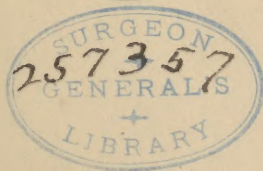
WALKING FOR HEALTH

WALKING FOR HEALTH

BY

ALVAH H. DOTY, M.D.

MEDICAL DIRECTOR, WESTERN UNION TELEGRAPH COMPANY:
FORMERLY HEALTH OFFICER, PORT OF NEW YORK.



D. APPLETON AND COMPANY
NEW YORK :: 1923 :: LONDON

QT
255
D725W
1923

COPYRIGHT, 1923, BY
D. APPLETON AND COMPANY ✓

PRINTED IN THE UNITED STATES OF AMERICA

©CIA759821 ✓

NOV 13 '23 ✓ R

no 2

INTRODUCTION

The following pages contain truths of great importance in the preservation of health and the prolongation of life. These truths are not new; they have been known for a long time; in fact, so well known that they have become familiar, and that familiarity has bred contempt. However, the attractive, concise manner in which they have been restated by Dr. Doty will, I hope, impress their value upon every one into whose hands this little volume falls.

GEORGE DAVID STEWART, M. D.

WALKING FOR HEALTH

A person who is seeking an assured recipe for long life or perfect health will not find it in this little book; nor will there be revealed in its pages any novel method of accomplishing his physical well-being. The author's purpose will be quite fully accomplished if he succeeds in making a convincing presentation of the great value of the commonest form of exercise, namely, walking, as an aid in the preservation of health and a safeguard against certain forms of disease of internal organs, particularly the brain.

It is very important at the outset that the reader should understand the system pro-

WALKING FOR HEALTH

vided by nature for the circulation of the blood and the functions of the blood, and the organs of the body which constitute an important part of the circulatory system. The tenure of life of a human being depends largely upon the soundness of the blood vessels, particularly those of the brain. It is an old saying, and in a way quite true, that a man is as old as his arteries, the significance of which statement will be apparent as we proceed. Blood is the great nutritive fluid of the body and directly or indirectly supplies every tissue with nourishment, and through the channels of various organs removes from the body worn out and poisonous matter. It also supplies oxygen which it receives from the air entering the lungs; of this a continuous supply is absolutely necessary for our existence,

WALKING FOR HEALTH

and if from any cause the supply is cut off, death quickly follows, as in drowning and other forms of suffocation. In order to perform these vital functions the blood must be driven to the remotest parts of the body, and nature provides a powerful pump for this purpose, known as the heart. It is estimated that the strength developed by this organ during twenty-four hours would raise a ton weight 120 feet. The heart is about the size of the closed fist, pear-shaped, with the base or large end above and to the right the apex or small end pointing downward to the left; in health the latter may be found in the space between the fifth and sixth ribs to the left of the median line. It is divided into a right and left side, each having two cavities, an upper and a lower, which connect with each other but not with

WALKING FOR HEALTH

the cavities of the opposite side. The partition between the upper and lower cavities is supplied with a valve which, in a normal condition, prevents a regurgitation or backward flow from the lower to the higher chamber. The upper compartment on each side is known as the auricle and the lower or more powerful ones the ventricle. The blood vessels composing the vascular system are arteries, veins, and capillaries.

The lungs are two conical-shaped organs with the base downwards, longer in the back than in the front, the right lung being a little heavier than the left. The smaller portion, known as the apex, extends to the clavicle or collar bone. The lung tissue is composed of millions of minute air cells or pouches which connect with the bronchial tubes and by this means

WALKING FOR HEALTH

with the outer world. The enormous surface represented by these little cells would, if spread out, cover a space of 600 square feet or more; this is supplied with blood vessels which receive oxygen from the air entering the lungs, for the purpose of purifying and enriching the blood. The walls of the air cells and the minute blood vessels surrounding them are so exceedingly thin that the absorption of oxygen and the discharge of certain poisonous products readily take place. It is here that the change from venous to arterial blood occurs. Each lung, like the heart, is surrounded by a closed sac containing a small amount of fluid to prevent friction during the movements of these organs. The sac covering the lung is known as the pleura and the one inclosing the heart is called the pericardium. The blood in its

WALKING FOR HEALTH

circuit of the body returns through the veins laden with impurities removed from the tissues and passes into the main trunks and from these is discharged into the right auricle of the heart; thence it enters the right ventricle and from that point is driven into the lungs and through the minute blood vessels surrounding the air cells already described, where it receives oxygen from the air in the lungs. The color is now changed from the bluish venous blood to the red arterial blood and, thus enriched and purified, reaches the left auricle of the heart; then passing to the left ventricle it is propelled to every part of the body, furnishing oxygen and nourishment to the tissues; after reaching the minute blood vessels and capillaries it begins to take up impurities; these very small vessels grow larger and ultimately become veins

WALKING FOR HEALTH

which form main trunks and discharge into the heart as already described. The circulation of the blood is thus completed.

The motive power of the arterial system of blood vessels resides in the left ventricle of the heart, the most powerful part of this organ, for this great muscle must have sufficient impulse left after forcing the blood through the arteries to aid the veins in returning the blood to the heart and as we shall see later on the veins are not nearly as strong as the arteries. In order to withstand the enormous pressure of the heart action and also to aid the latter in the process described, the arteries must be strong as well as resisting, for they work unceasingly day and night throughout life. To meet this heavy demand they are composed of three coats: (1) the inner consisting of an exceed-

WALKING FOR HEALTH

ingly smooth membrane which permits the blood to flow unretarded and without friction, (2) the middle coat of muscular and yellow elastic tissue which allows of dilation and contraction of the vessels in response to the heart's action, and aids the latter in propelling the blood throughout the body, and (3) an outer or fibrous coat which furnishes great strength to these vessels.

The contraction of the left ventricle giving momentum to the current of blood passing through the arteries causes what is known as the "pulse," which may be easily detected at the wrist or wherever an artery comes close to the surface of the body. This pulsation is not found in veins, chiefly because they are too far removed from the action of the left side of the heart and because their coats are much thinner

WALKING FOR HEALTH

than those of the arteries, the pressure of blood from within being far less than in the latter vessels; furthermore the veins are not, like arteries, supplied with a coat of yellow elastic tissue, and therefore when severed they collapse while arteries remain open. The circulation of the blood constitutes the most vital function of the body. That the heart and blood vessels, which are unremittingly in action and always under great strain, are able to maintain their integrity for many years is one of the marvels of nature, particularly as their activity takes place in the face of many obstacles and with but little concern on our part in the matter of voluntarily avoiding undue demands upon these organs. The heart is the only machine in the world that never stops until the close of life. There is, of

WALKING FOR HEALTH

course, a limit to the protection which nature extends in this direction, and, with increasing age, the coats of the blood vessels, particularly of the brain, become weakened, and in the latter organ as a consequence rupture sometimes occurs and is followed by hemorrhage, causing apoplexy and paralysis of one side of the body, a condition which is well known to the public. It is usually late in life when this happens, but it may be hastened by certain diseases, by long-continued and excessive brain work and sedentary habits, overstimulation, and other causes. It is of more common occurrence than is generally suspected and there is good reason to believe that it has increased in frequency in recent years. The Health report of the greater city of New York for the year 1921 states that during that period 886

WALKING FOR HEALTH

deaths from apoplexy were recorded. These, of course, do not include the many cases of this affection which are, for the time at least, not fatal. Statistics presented by the United States Government Service give a death rate for apoplexy in 1919 as 73.8 per 100,000 inhabitants, while in 1920 it was increased to 80.9. It is further reported that during 1920 there were 70,780 recorded deaths from apoplexy in the United States—a rather disturbing statement which clearly indicates the need of greater protection against this source of danger.

Even under normal and healthful conditions a strong pressure always exists within the blood vessels. This is necessary in order that the blood may be driven to every part of the body, and nature meets the requirement by endowing the blood

WALKING FOR HEALTH

vessels with great strength which enables them to withstand this continued strain for a long period of life. With this we need not concern ourselves. However, we should guard against prolonged excessive blood pressure and congestion of internal organs, particularly the brain, due largely to preventable causes—to an improper mode of living which goes far to harden, weaken, and seriously affect the elasticity of the coats of these blood carriers.

In our study to discover by what natural and simple means these conditions may be prevented or ameliorated we find that certain classes of persons, such as manual laborers, farmers, ranchmen, postmen, and the like, whose work involves daily physical exercise in the open air are far less subject to attacks of apoplexy and various organic derangements than are so-called

WALKING FOR HEALTH

brain workers — financiers, scientists, writers, and others of both sexes whose occupations demand constant use of the brain with little or no physical exercise. The obvious significance in the fact that the manual laborer or the farmer or others engaged in physical exercises are to a large extent exempt from diseases of the circulation, to which the brain worker or man of sedentary occupation is susceptible is that in the one case the man is systematically exercising all parts of the great external muscular system in the open air as an incident to his work and in the other he is not.

Constant brain workers, as well as those who are victims of prolonged worry or distress of mind, and those who are prone to excesses of various kinds, imposing daily and often nightly undue pressure

WALKING FOR HEALTH

upon the cerebral blood vessels, with but little or no opportunity for or attention to systematic and sensible physical exercise or proper nourishment of the body, pay but little heed to the signals of an over-worked brain which nature gives in the way of headache, insomnia, mental fatigue, and other manifestations indicating blood pressure not consistent with health; they do little or nothing in the way of seeking a natural remedy which will furnish permanent relief, provided no underlying disease is present, but rather deal with the case by a resort to drugs and various forms of stimulants whose aid is but superficial and temporary.

Briefly, the body contains a certain amount of blood estimated at one twelfth of its weight. There is a constant demand throughout the entire system for this

WALKING FOR HEALTH

nutritive fluid ; however, as certain organs or tissues, during increased functional activity or in the instance of various forms of irritation either internally or externally, call for a rapid sending of blood to these parts, it follows that when this occurs the supply of blood in other sections of the body is correspondingly diminished. As a simple and well known illustration of this, reference may be made to the action of agents described as counter irritants; for instance, the common home remedies used locally to relieve pain or congestion of deeper parts. An ordinary cold is often relieved by a hot foot bath to which a little mustard is sometimes added, this being promptly followed by an intense redness of the skin with excellent results. Hot poultice or other stimulating applications placed over the chest or abdomen are com-

WALKING FOR HEALTH

monly very effective in soothing pain and relieving internal disturbance of various kinds. The palliation thus quickly effected is due chiefly to the relief of congested or inflamed parts. These simple methods seem to show what may be done in the way of rapidly changing the blood current from one part of the body to another by a means which nature permits in the way of a long walk in the open air, diverting to the external muscular system particularly of the lower extremities a largely increased amount of blood to provide for greater activity of these parts which obviously promptly diminishes the blood supply of internal organs. It would be difficult to conceive of a simpler or more effective protection against undue internal blood pressure than walking, both for its simplicity and effectiveness; besides it costs

WALKING FOR HEALTH

nothing, and it is available at all times for any one not physically disabled. Its value is quite apt to be minimized by the public, for it is a human failing not to appreciate aid which we may obtain without effort or expense.

While long-continued congestion and overaction of an internal organ is quite likely later in life to lead to some disturbing or very serious organic change, there need be no concern as to any danger which may follow daily or prolonged activity of the great external muscular system of the body. We may learn this largely from the history of the great professional pedestrians who in public exhibitions have walked more than five hundred miles in six consecutive days. At other times their daily exercise is a walk from ten to twenty miles in order to keep in good phy-

WALKING FOR HEALTH

sical condition. Alfred Payson Weston, the greatest professional walker of modern times, recently at the age of eighty-four walked from Buffalo to New York, a distance of four hundred and fifty miles, averaging about fifteen or twenty miles a day, without any apparent distress or inconvenience.

While it is quite true that exercise in the open air is everywhere accepted as important in the maintenance of health, it is regarded rather as a means of strengthening the general muscular system or certain defective parts of the body, reducing weight, increasing the appetite, and the like; but its great value as a powerful agent in the adjustment of the circulation and consequent relief of internal organs is little understood and less utilized. Unfortunately this, the most important

WALKING FOR HEALTH

object of exercise from the health point of view, is practically unknown and the various kinds of exercise selected or favored by individuals depend largely upon the character of their pleasures. Reference will be made to certain forms of exercise with a view of appraising their value in relieving undue internal blood pressure.

It is a common practice upon arising in the morning to open the window and take a few deep inspirations with the arms raised or in motion. This is more or less stimulating and refreshing and is a good waking-up process, but it is of short duration and follows a period of rest when there is less need of defence against undue blood pressure, and it has therefore no particular value.

Various methods of floor exercise are in

WALKING FOR HEALTH

vogue which include all kinds of contortions, usually with the head at or below the level of the body, and, while this may be instrumental in reducing the body weight or of value in developing certain muscles or helping some disabling conditions, it does not relieve the brain pressure, but rather increases the flow of blood to this organ by the recumbent position of the body. There are many kinds of exercise recommended for special purposes which are quite successful in their way, yet they play no conspicuous part in the regulation of the circulation, at least they do not relieve the congestion of cerebral vessels or those of other internal organs to the desired extent.

Probably the most common mode of exercise and the one which has been in practice from very early times is that

WALKING FOR HEALTH

obtained in the gymnasium; the reverence paid this method of exercise, which is so familiar to all, has prevented a careful estimate of its value. Gymnasium exercise is of comparatively little importance in the maintenance of health; its real value is in the cultivation of the athlete or in instances where special development is called for. It cannot be doubted that it is attended with some risk to those advanced in years, in view of the strenuous work involved, and it not only does not relieve cerebral blood pressure but definitely increases it, and therefore defeats its very purpose as a health measure suitable for all ages. While it has a passing importance to those engaged in athletic pursuits at college and elsewhere, it loses its interest when one enters a business or professional career, except in the instance of

WALKING FOR HEALTH

the professional athlete, and does not provide the exercise proper for a life-time. Again, while gymnasium work may not involve much expense, it does require time and preparation, and the fact that it is conducted indoors robs it of a large part of its value.

None will disagree with the statement that horseback riding is most refreshing and enjoyable, as well as a useful means of exercise; but the expense involved and many other reasons put it out of the reach of all but a few privileged individuals, and excludes it from serious consideration.

Golf, which to a great extent is walking made interesting, is of inestimable value in the way of relieving overcharged internal blood vessels, and has become a very important factor in the maintenance

WALKING FOR HEALTH

of good health among persons of all ages and both sexes. It is significant to note that many individuals, who in former years made annual pilgrimages to famous foreign springs to follow a course of treatment there, consisting mainly of the use of cathartic waters for the purpose of relieving certain congested conditions (a measure which in the end, as a matter of fact, was quite sure to reduce their vitality) have found a most efficacious restorative in golf.

Tennis, which as a pastime divides popularity about evenly with golf, is not of the same practical value as a means of exercise for health because it is too rigorous for those advanced in years, and is monopolized by persons of a less mature age. Valuable as both golf and tennis are as a means of healthful recreation and

WALKING FOR HEALTH

exercise out of doors, neither game meets all the requirements in the way of furnishing daily relief for congested internal organs, because they are played only at certain seasons of the year ; they are available, as a rule, only to persons of some leisure ; they involve more or less expense ; playing is irregular, and the means and opportunities for playing at all are denied to the mass of people, because golf links and tennis courts are not everywhere accessible.

In reaching a conclusion as to the best form of exercise, a line of demarcation must obviously be drawn between what may be termed healthful exercise, which is mainly for pleasure and incidentally for the development of certain muscular parts, or the correction of various defective physical conditions, and exercise which is

WALKING FOR HEALTH

not only pleasurable but has a definite and specific value in the direction of maintaining a healthful adjustment of the circulation, and it is sought in the comments above made on the forms of exercise most in use to indicate this line of distinction. It must be found where the form of exercise combines on the one hand regularity, availability, economy of time and expense, and reaching in its results all the bodily ramifications, and on the other hand those forms that are unsystematic and only occasionally available.

Fortunately nature has provided us with precisely the equipment that furnishes to every one the possibility of having the right kind of exercise—the daily use of the great external muscular system of the body particularly of the lower extremities—in other words, walking. Nothing can

WALKING FOR HEALTH

equal in its beneficial results upon the circulatory system, which we have been particularly discussing, a systematic daily walk under the conditions hereinafter prescribed. Arm or chest exercise cannot be regarded as a substitute for walking, for in the latter process the lower extremities which consist of a great mass of muscular tissue, demand a very large increase of blood during prolonged activity and, moreover, with the aid of gravity the blood from the interior is then flowing more readily into the lower extremities; again, exercise with the arms and chest is more abrupt and violent and does not preserve that regular pistonlike motion which takes place while walking, and which, if continued long enough, is sure to relieve undue pressure upon the cerebral vessels; moreover, the muscular activity of the

WALKING FOR HEALTH

upper extremities, particularly in gymnasium practice, is quite apt to retard the flow of blood from the brain.

The reason that systematic walking is not more commonly practiced with the very important objective of keeping the body in condition is that its virtue as an exercise is largely unknown or unheeded and, being within the reach of everybody, it is, like many other common things of value, not prized. About the only objection that can be urged to this form of exercise is, that it is irksome to walk for the mere sake of walking, but this objection is not serious enough to deter one who is seeking health preservation and he will not be impressed by a consideration so fanciful. To derive the utmost benefit from walking it must be taken up as a earnest enterprise to be performed daily

WALKING FOR HEALTH

and systematically, and he who does this will not fail to learn its great practical value, not alone in the protection that it will inevitably afford to the circulatory system which must be studiously safeguarded as already admonished, but in a general and lasting improvement in health conditions, accompanied by a sensation of buoyancy and stimulation, which will be a constant incentive to continue the exercise.

In these days, when attention to the care of the body is at a rather low ebb, it is necessary to emphasize sharply the special need of the regular habit of walking as a means of health protection and the prolongation of life. Furthermore, those who follow this healthful course are quite sure to give heed to the importance of proper food, sleep and the like, most essential aids in the conservation of

WALKING FOR HEALTH

health. Children should be early taught to know the value of this natural means of maintaining health which should be continued throughout life; to teach a child the value of walking establishes a practice that in no way interferes with gymnasium drill or other forms of athletic activities for some special purpose. It should form an important part of the instruction at schools and colleges where unfortunately little or no attention is paid to this most valuable health protective measure whereas the good that would thus accrue by well directed education along the lines referred to is incalculable.

A careful analysis of this subject will quite clearly prove that no other form of exercise is comparable to a daily walk in the open air, that it is the proper exercise for a lifetime and that it supplies the most

WALKING FOR HEALTH

effective and natural means of protection against the congestion of internal organs when not caused by some form of organic disease. Concerning the practical operation of walking it may be said that it not only exercises the great muscles of the legs, which is most valuable in the way described, but it also furnishes exercise for the rest of the external muscles of the body, and in this way increases the capacity of the chest and provides all necessary exercise, except that called for in the instance of special athletic work.

It should be clearly understood that the real virtue in walking as recommended in this book is to be found only when it is performed daily and systematically as a serious, as well as a pleasant, undertaking and according to the suggestions which are about to be made.

WALKING FOR HEALTH

We are now prepared to deal with the following questions:

1. What distance should be covered in the daily walk?
2. At what speed should the walk be made?
3. What preparations are necessary?
4. At what time of day should the walk be taken?
5. When should the walk be taken in relation to mealtime?

What distance should be covered in the daily walk? This is rather difficult to determine, although it is the most important factor in connection with this form of exercise, for its value depends on covering a sufficient distance to stimulate an increased flow of blood to the surface of the body and thus insure internal relief; so it is incumbent upon each person to study

WALKING FOR HEALTH

carefully the distance which seems to give the desired result. Those of sedentary habits who make but little use of their muscular system should at the outset bear in mind that the muscles of the legs have had comparatively little exercise, and that it will take some days to fit them for use in the way of a prolonged daily walk; a straightaway walk of a mile or so will be sufficient for the first few days, then a gradual increase to from three to five miles a day depending upon the makeup of the individual and the result obtained; this must be decided by the walker, for, within the maximum distance referred to, there should be relief for every one unaffected by some form of organic disease or physical deformity, without producing physical exhaustion which is undesirable and may defeat the end in view. On the

WALKING FOR HEALTH

other hand, there are many who can exceed this distance with the best results. It is hardly necessary to state that the distance referred to should be decreased in the case of children. *A very important point to bear in mind is that the walk should be continuous and not piecemeal, for under the latter condition it would lose its valuable feature of withdrawing from the interior of the body sufficient blood to relieve the internal parts.*

For the first mile or so after the practice of walking has been established, a person is not conscious of any appreciable change of feeling and a sense of weariness may persist but it shortly begins to disappear and is succeeded by a feeling of well-being as the blood is being brought below the belt, a term which may be used to indicate that the circulation has been largely di-

WALKING FOR HEALTH

verted from the internal organs, particularly the brain, which have now passed to a period of comparative rest.

It is a great mistake to assume that a long walk on Saturday or Sunday answers the purpose of a daily walk of a reasonable distance which is not to be a test of strength nor taken with the intent of tiring a person physically, but as already stated for the purpose of withdrawing a sufficient amount of blood from the interior of the body to relieve the brain and other internal organs and in this way to secure for them a daily period of repose.

At what speed should the walk be made? In discussing this part of the subject it should be borne in mind that the object of the walk is a matter of health and the adjustment of the circulation and not for athletic purposes or to reach a given point

WALKING FOR HEALTH

at a given time; a pace should be taken which is easy and comfortable with no undue exertion, with body erect and with a natural swing of the arms. A bent-over position of the body and contracted chest interferes with proper expansion of the lungs and should be carefully avoided while walking. With these general points in mind and an ordinary course with no unusual obstruction a person can easily cover three miles within the hour—in New York City this would be about equal to sixty city blocks, twenty blocks to a mile. Even in cities not so well arranged as New York for computing distances, a person can calculate quite closely as to the distance which should be covered in the daily walk. Hills should be avoided if possible for to mount them requires an increased action of the heart which to a cer-

WALKING FOR HEALTH

tain extent defeats the end in view, particularly in the case of those who are not in robust health or are advanced in age.

What preparations are necessary for the daily walk? No special preparations are necessary, for the walk is not intended as a test of physical strength or for exhibition purposes, but rather to divert the blood from overcharged internal organs and to obtain the pleasure of outdoor exercise. It would seem hardly necessary to refer to the importance of proper footgear, yet a person will often walk long distances wearing a pointed or close-fitting shoe, both of which are very unpleasant and undesirable; thin shoes do not offer a proper protection or support to the feet. Tight, ill-fitting or darned stockings should be avoided. Other arrangements in the way of comfortably fitting clothes

WALKING FOR HEALTH

are matters which the walker will be able to decide for himself in order to prevent any annoying or undue restrictions about the body. There is, however, one detail in connection with the preparation for the daily walk which should never be overlooked and that is protection against wet feet; this condition renders a person uncomfortable, but, more important still, is frequently the cause of a cold or possibly some serious pulmonary trouble.

During the summer months walking is far less liable to cause sweating than are the more vigorous forms of exercise, but at the end of a long walk, if a person is perspiring, he should not rest in a cool place, particularly if exposed to drafts; nor ride in open cars or automobiles. It is safer to make a change of clothing.

In a recent interview with the author,

WALKING FOR HEALTH

Mr. Weston to whom reference has already been made condemned very emphatically the so-called heel-and-toe method of walking, that is, the weight of the body being first thrown on the heels and then on the toes, and stated that the feet should be more evenly planted on the ground—otherwise the heels are quite sure to become tender and sore during a long walk. Mr. Weston, in his various writings on the subject of walking, makes special reference to the importance of keeping the feet in good shape and free from irritation and undue pressure. This may be accomplished by frequent bathing of the parts, well trimmed nails, the prevention of corns and the like and suitable foot gear. Careful attention to this valuable advice should not be confined to professional pedestrians who depend largely

WALKING FOR HEALTH

upon the necessary care of the feet to achieve success in their trials of endurance, for it also applies to those who wish to derive benefit from a daily walk, for if the feet become tender and sore and not in proper condition for prolonged use, walking is rendered unpleasant and uncomfortable and this may go far to defeat the end in view.

It may be added as a matter of interest to those not familiar with the marvellous achievements of this great pedestrian that he walked 540 miles in six consecutive days and during one of these days covered a distance of 120 miles. In connection with his professional matches alone he has walked the equivalent of more than three times around the earth and at eighty-five years of age is in excellent physical condition and at the time of writing is mak-

WALKING FOR HEALTH

ing arrangements for another cross-country walk. He strongly emphasizes the importance of a daily walk in the open air.

At what time of the day should the walk be taken? This of course depends largely upon the time most available for the purpose. For those who work indoors and whose habits are sedentary and whose daily duties involve mental rather than physical labor, the most valuable, effective, as well as the most economic period is the interval between the end of the day's work and dinner time. Principals as well as employees are usually released from work about five o'clock. Between this and the dinner hour there is usually sufficient time to take the needed exercise with the best results. This may be opposed on the ground that at this period a person is tired and unfit for exercise. It is not a good

WALKING FOR HEALTH

objection for the sense of fatigue and weariness is chiefly a mental and not a physical condition and the remedy for it is physical exercise in the open air provided it is not contraindicated by some organic disease or underlying condition. After this habit is established there is a feeling of buoyancy and relief which must be experienced to be fully appreciated. Again, exercise at this time of the day acts as a reviver, better fits a person for dinner, and is quite sure to promise a good night's rest provided one does not eat inordinately. If every brain worker sitting all day without exercise and weary and irritable, would at its close take a long walk, that person would not only be refreshed but far more welcome to the family on arrival at home.

[There are few who, if they so desire,

WALKING FOR HEALTH

cannot make arrangements for walking at this hour of the day. If for some good reason a person cannot walk before the dinner hour, then a walk may be taken an hour or so after dinner. This intermission is necessary, for at mealtime the digestive apparatus requires a largely increased amount of blood properly to perform its function. If this is interfered with by the activity of the external muscular system before a proper interval of rest elapses, the digestive function is impaired for the want of a full blood supply. In view of this, the advantage of walking at the close of business hours and before dinner is manifest.

It is a common belief that night air is not favorable for outdoor exercise. There is but little to sustain this opinion as a health proposition beyond the fact that the

WALKING FOR HEALTH

evening is not as pleasant for walking as the daytime. Until recent years it was believed that night air caused malaria; now we know that this disease is due to the bite of a certain type of mosquito and that night air has nothing to do with the case except that mosquitoes are more active after dark. While the Malarial mosquito is found throughout the world it is not the common variety encountered in the United States; It abounds only in certain sections where its presence is usually known. In built up communities particularly in large cities where modern sanitary regulations are in force and where special means are taken to prevent mosquito breeding, malaria has practically become a negligible factor.

The most difficult yet the most important lesson to learn in connection with the sub-

WALKING FOR HEALTH

ject of walking is, that the feeling of weariness experienced by brain workers of sedentary habits, free from organic disease is to a very great extent a mental condition and the remedial agent is physical exercise in the open air. The sense of fatigue in some instances, due largely to a torpid condition of internal organs, is almost overpowering and it might seem that any movement of the body would be contraindicated, yet it requires but little time and patience to learn that this condition is greatly benefitted if not overcome by a daily walk in the open air. When personal experience teaches the truth of this statement and mental weariness and common abdominal distresses are relieved by this simple natural means, walking becomes a pleasant daily habit which is not likely to be interfered with by climatic changes or by the absence of companionship.

BOOKS ON HEALTH AND HYGIENE

THE HOME MEDICAL ADVISER

By KENELM WINSLOW, M.D.

A complete, up-to-date and helpful book that is invaluable in the home. Information on all diseases that occur under home conditions and their remedies, in simple language. Illustrated.

GOOD HEALTH

By ALVAH H. DOTY, M.D.

Tells the person not in good health how to get it and how to keep it once it has been obtained. Illustrated.

HANDBOOK OF HEALTH AND HOW TO KEEP IT

By WALTER CAMP

A sane, universally available system, whereby one may keep himself normally fit, whether he be child or adult, scholar or ditch digger.

HOW TO REDUCE—New Waistlines for Old

By ANTOINETTE DONNELLY

An expert writes in pithy paragraphs of how to secure slimmness without making a martyr of oneself. Illustrated.

CARE OF THE SKIN AND HAIR

By WILLIAM A. PUSEY, M.D.

A popular discussion, by a specialist, on hair and skin hygiene, with simple methods for keeping both healthy and ornamental.

CARE OF THE TEETH

By S. A. HOPKINS, M.D., D.D.S.

This practical guide to the care of the teeth is written with a view to the actual needs of the family.

D. APPLETON AND COMPANY

NEW YORK

LONDON

QT 255 D725w 1923

07620170R



NLM 05052319 2

NATIONAL LIBRARY OF MEDICINE